

Work Order ID 111282

January-09-14 3:40:17 PM

\*111282\*

Page 1

Item ID: D2966-1-BENT

Accept

\*N900040100\*

Setup Start \*NS1\*

Revision ID:

Stop \*NS2\*

Item Name: Skidtube Assembly 105

Start Date: 1/09/14 Start Qty: 5.00

\*5\*

Cust Item ID:

Required Date: 1/23/14 Req'd Qty: 5.00

\*5\*

Customer:

Reference:

Approvals: Process Plan: MLJ Date: 14-01-09 Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start \*NR1\*

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop \*NR2\*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
----------	--------------

D2966	Rev A
-------	-------

120

0.00

\*120\*

BENDING MACHINE - SKIDTUBES

CNC Bend 1

Memo

0.00

CNC Delta 100 Bender

1-Bend tube as per program BO105 on CNC Bender and Dwg D2966. Bend folio #1 use bending aid DT9631

2-Cut Fwd end of the tube using DT8185-1

S 14-01-10 DL

150

QC5- Inspect part completeness to step on W/O

0.00

\*150\*

QC

Memo

0.00

Quality Control

DP 14-1-10

300

Identify as per dwg & Stock Location: 46

0.00

\*300\*

Packaging

Memo

0.00

Packaging

DP 14-1-10 (5)

Work Order ID 111282

\*111282\*

Page 2

January-09-14 3:40:17 PM

Item ID: D2966-1-BENT

Accept

\*N900040100\*

Setup Start \*NS1\*

Revision ID:

Stop \*NS2\*

Item Name: Skidtube Assembly 105

Start Date: 1/09/14 Start Qty: 5.00

\*5\*

Cust Item ID:

Required Date: 1/23/14 Req'd Qty: 5.00

\*5\*

Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start \*NR1\*

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop \*NR2\*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

310 QC21- Final Inspection - Work Order Release

0.00

\*310\*

QC

Memo

0.00

Quality Control

14-01-10

14-01-10

# Picklist Print

January-09-14 3:40:21 PM

Page 1

Work Order ID: 111282

**\*111282\***

Parent Item: D2966-1-BENT

**\*D2966-1-BFNT\***

Parent Item Name: Skidtube Assembly 105

Start Date: 1/09/14

Required Date: 1/23/14

Start Qty: 5.00

Required Qty: 5.00

Comments: IPP rev A 10.09.17 New issue EC verified by:DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D2962-150		Manufactured	No				Each	79.0000		5			

**\*D2962-150\***

3.540 Outer Tube, Extrud

**\*\***

Location

Loc Qty

Loc Code

HALL

79

59934

4

90871

75

\_\_\_\_\_  
\_\_\_\_\_  
5

14-01-10 DGL.



DESIGN RF	DRAWN BY RF	DART AEROSPACE USA, INC. BELLEVUE, WA	
CHECKED #	APPROVED #	DRAWING NO. D2966	REV. A SHEET 1 OF 2
DATE 00.03.08		TITLE BO 105 SKIDTUBE ASSEMBLY	SCALE NTS
A	00.03.08	NEW ISSUE	

RELEASED  
00.05.11 #

Qty	Part Number	Description
X	D2966-041	SKIDTUBE ASSEMBLY
1	D2962-125	EXTRUSION
1	D2964	CAP
1	D2965	CAP
1	D2970-1	WEARPLATE
1	D2970-3	WEARPLATE
1	D2971	CROSS BOLT SPACER
7	D2973	CROSS BOLT SPACER
1	D2976	WEB
36	ALS7-1032-130 or ALS4-1032-130 or AKS7-1032-130 or AKS4-1032-130	INSERT
28	AN960JD10L	WASHER
26	MS27039-1-08	SCREW
2	MS27039-1-09	SCREW
1	D3176-1	BUSHING
1	D3176-3	NUT



GENERAL NOTES:

- 1) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 2) WELDING TO BE DONE PER DART QSI 004.
- 3) INSERT D2976 WEB TO LOCATION SHOWN OFF AFT END OF SKIDTUBE AND BOND WEB INTO OUTER TUBE WITH NON-STRUCTURAL SIKAFLEX-241/-291 ADHESIVE PER DART QSI 015 AFTER BENDING.
- 4) USE DART DRILL TEMPLATE DT8451 TO LOCATE AND DRILL Ø0.297 HOLES FOR WEARSHOE INSERTS. INSTALL ALS7-1032-130 PER SECTION B-B (34 PLACES) AFTER FINISH. SEAL WEARPLATE SCREWS WITH SIKAFLEX-241/-291.
- 5) DO NOT INSTALL MS27039-1-08 SCREWS AND AN960JD10L WASHERS IN THESE LOCATIONS.
- 6) INSTALL ALS7-1032-130 INSERT, MS27039-1-08 SCREW, AND AN960JD10L WASHER IN 2 PLACES THIS LOCATION BEFORE POWDER COATING.
- 7) FINISH:

ACID ETCH, ALODINE PER DART QSI 005 4.1 PRIOR TO INSERTING D2976 WEB  
POWDER COAT ASSEMBLY ~~GLOSS WHITE (REF 4.3.5.1)~~ PER DART QSI 005 4.3  
BLACK ANTI-SKID PAINT AS INDICATED TO 1.00 ABOVE CENTER LINE PER DART  
QSI 005 4.4 (OPTIONAL) BLACK SANDTEX (REF 4.3.5.7)



# 01.01.29  
CP 01.01.30

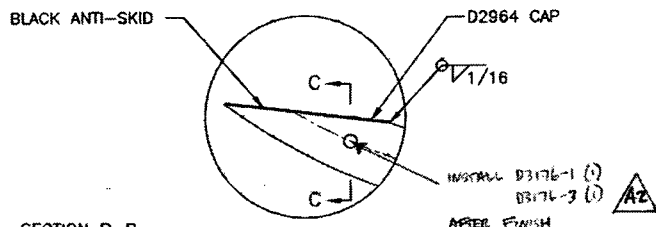
A2	02.10.30	ADD D3176-1/-3	# CP
A1	01.01.29	CHANGE COLOR TO BLACK SANDTEX	# CP

Copyright © 2000 by DART AEROSPACE USA, INC.

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.

111282  
ML5  
14-01-09

DETAIL A  
SCALE 1:3



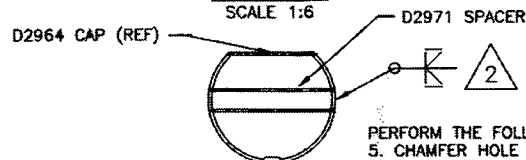
SECTION B-B  
SCALE 1:6



AFTER BENDING AND DRILLING ASSEMBLY  
PERFORM THE FOLLOWING FOR  $\phi 0.750$  HOLES ONLY:  
1. CHAMFER HOLE  $0.030 \times 45^\circ$   
2. INSERT D2973 SPACER (7 PLACES)  
3. WELD INTO PLACE AND GRIND FLUSH  
4. PASS  $\phi 0.630$  DRILL TO REMOVE SPILL OVER

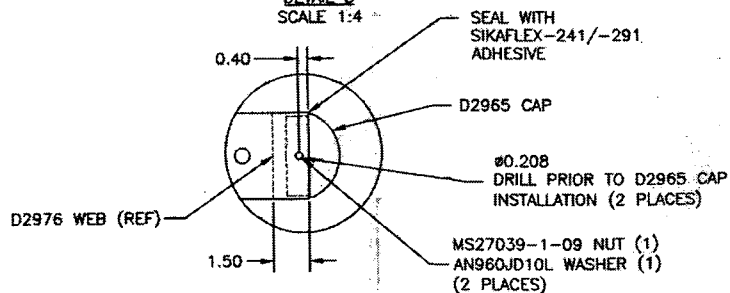
ALS7-1032-130 INSERT (34 PLACES)  
MS27039-1-08 SCREW (1)  
AN960JD10L WASHER (1)  
(26 PLACES)

SECTION C-C  
SCALE 1:6

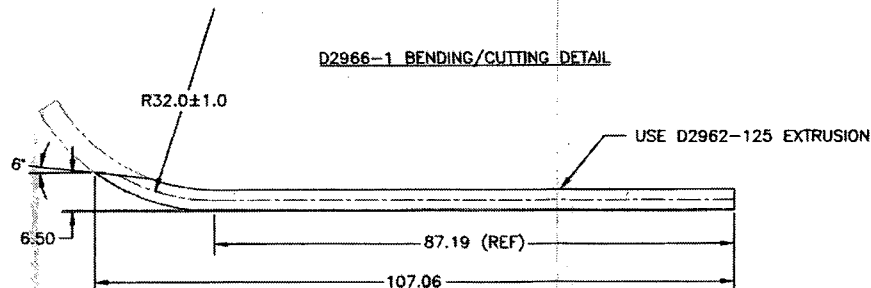


PERFORM THE FOLLOWING FOR  $\phi 0.625$  HOLES ONLY:  
5. CHAMFER HOLE  $0.030 \times 45^\circ$   
6. INSERT D2971 SPACER  
7. WELD INTO PLACE AND GRIND FLUSH  
8. PASS  $\phi 0.484$  DRILL TO REMOVE SPILL OVER

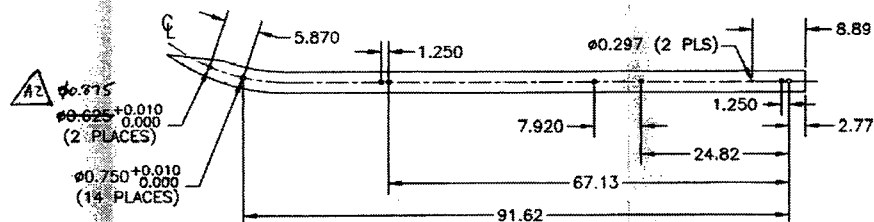
DETAIL D  
SCALE 1:4



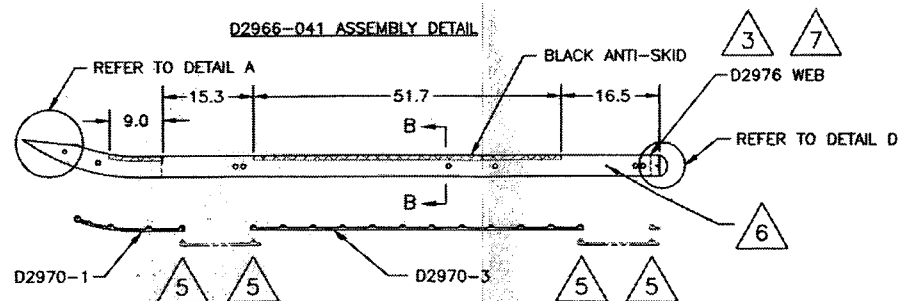
D2966-1 BENDING/CUTTING DETAIL



D2966-1 DRILLING DETAIL



D2966-041 ASSEMBLY DETAIL



COPYRIGHT © 2000 BY DART AEROSPACE USA, INC.

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL  
AND IS SUPPLIED ON THE EXPRESS CONDITION  
THAT IT IS NOT TO BE USED FOR ANY PURPOSE  
OR COPIED OR COMMUNICATED TO ANY OTHER  
PERSON WITHOUT WRITTEN PERMISSION FROM  
DART AEROSPACE USA, INC.

DESIGN  
RF  
CHECKED  
4  
DATE  
00.03.08

DRAWN BY  
RF  
APPROVED  
4

**DART** DART AEROSPACE USA, INC.  
BELLEVUE, WA

DRAWING NO.  
D2966  
TITLE  
BO 105 SKIDTUBE ASSEMBLY  
REV. A  
SHEET 2 OF 2  
SCALE  
1:20

RELEASED  
00-05, 11